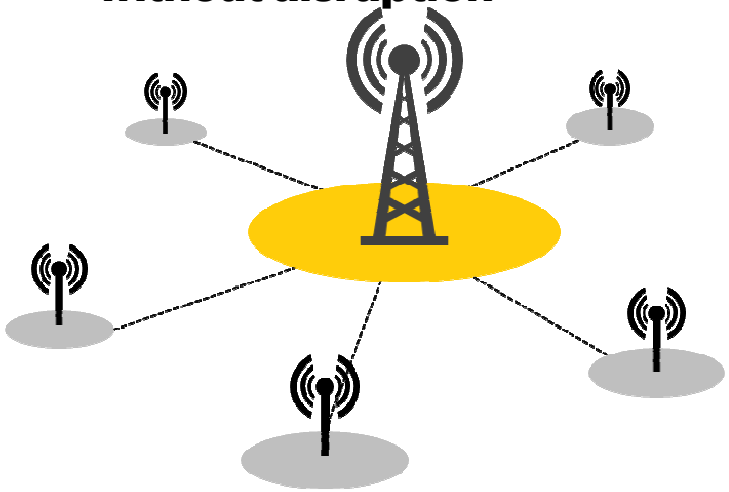
Sprint Network Deployment

March 13, 2017

Densification & Optimization program

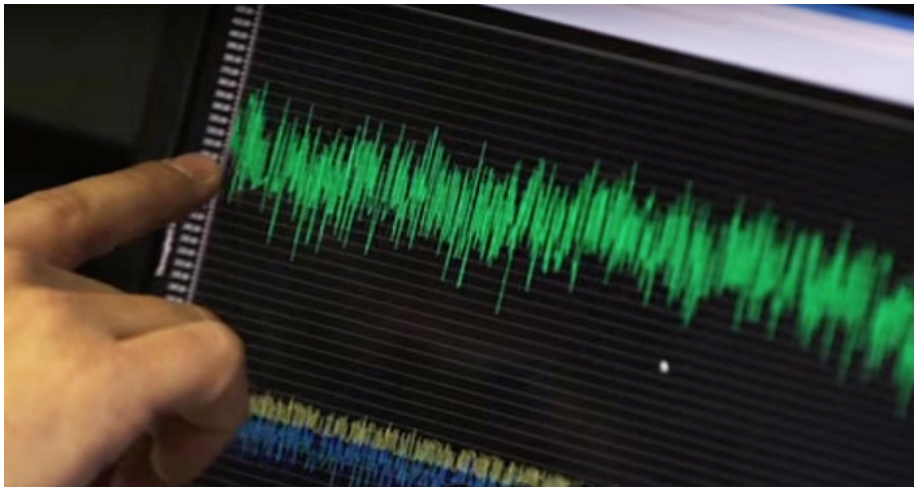
Densification

Unlocking tomorrow's network without disruption

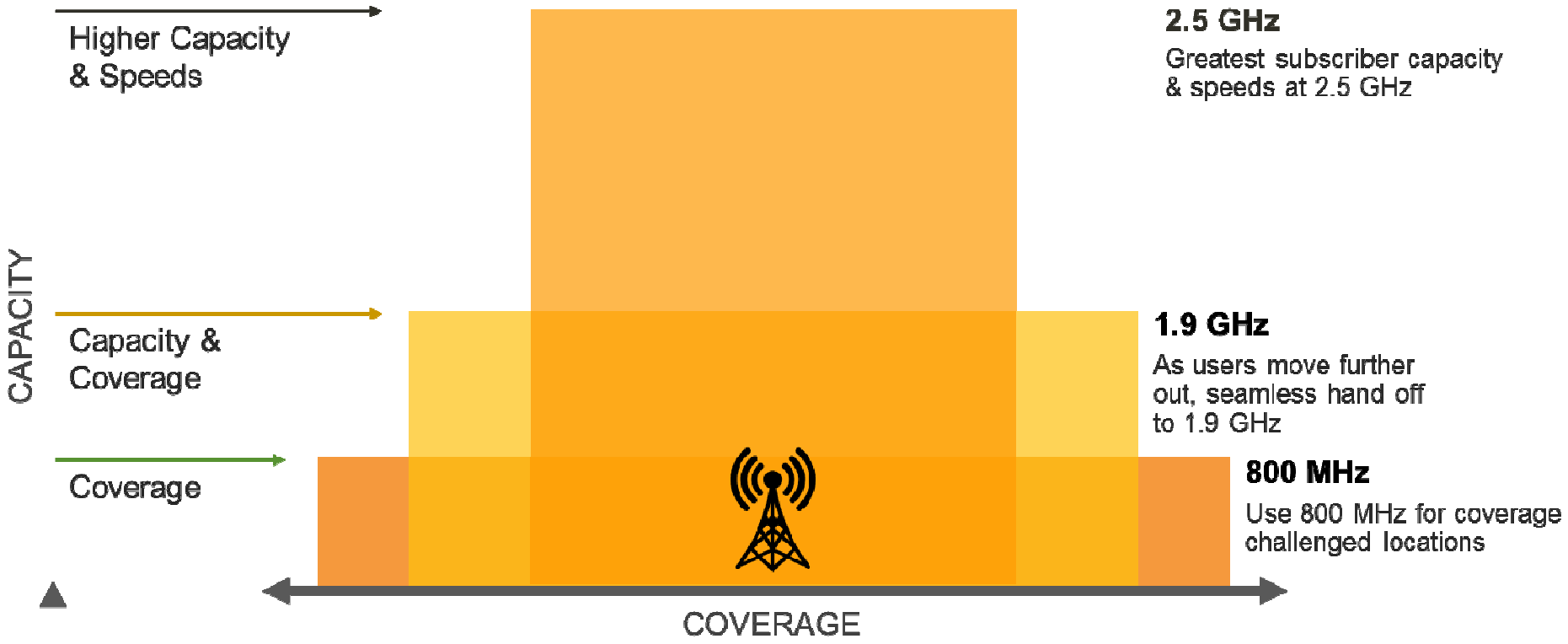


Optimization

Get better results out of existing assets



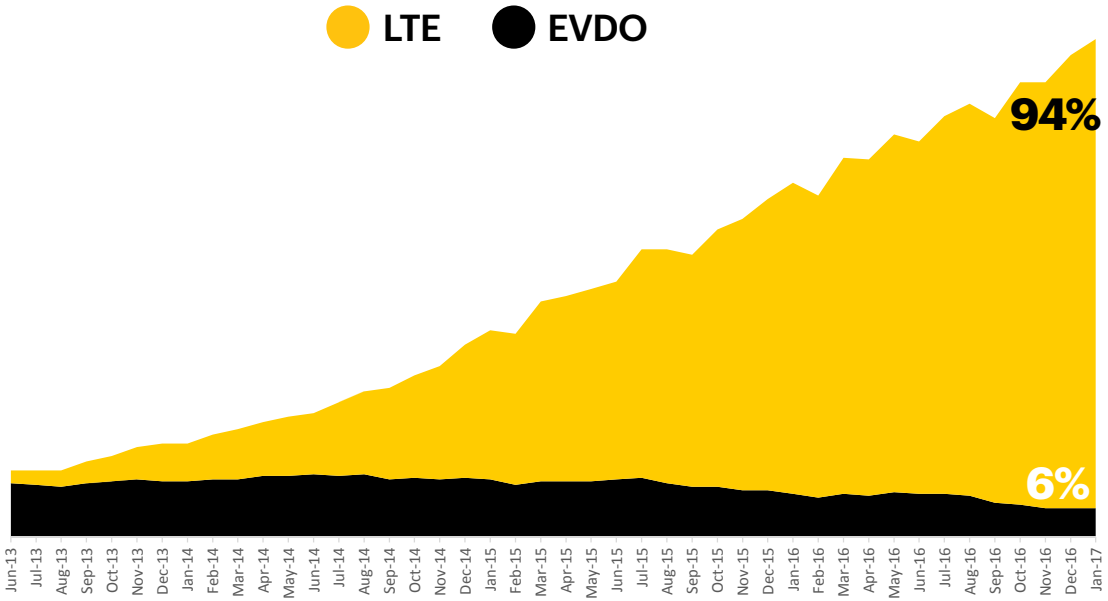
Sprint's Triband Portfolio Provides Balance Between Capacity and Coverage



Optimization: We launched our Optimization to improve performance of existing assets

- ✓ **Completed Network Vision**, that unified 4 technologies onto a single network
- ✓ **Deployed HD Voice** nationwide
- ✓ **Utilized the 800, 1.9 and 2.5 GHz spectrum effectively** ("Top Gun")
- ✓ **Deployed 2.5 GHz to cover 200M population**
- ✓ Moved traffic from 3G (EVDO) technology to **faster 4G (LTE) technology**
- ✓ Deployed **more LTE spectrum per customer** than any other carrier

Optimization: Delivering improved quality despite huge traffic growth



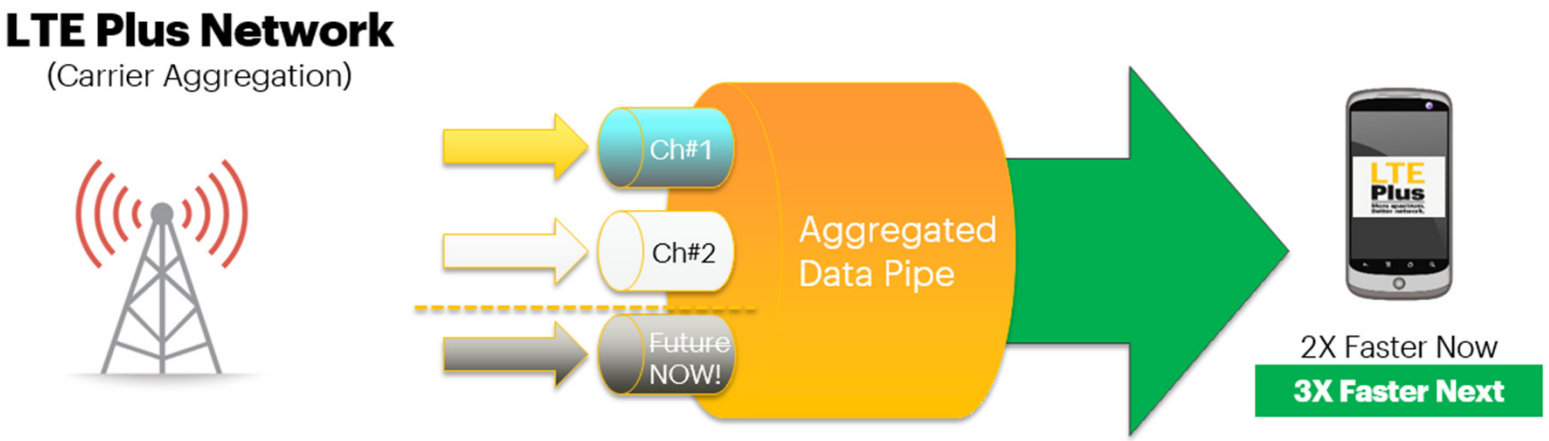
MORE 4G | Less 3G

Total traffic grew 5X!!!!!

LTE

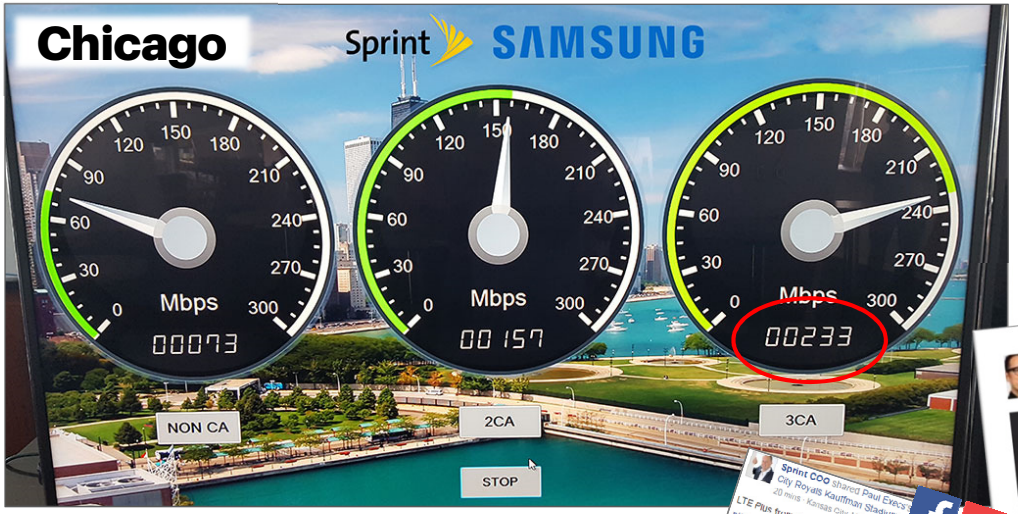
~94% of data traffic now on LTE

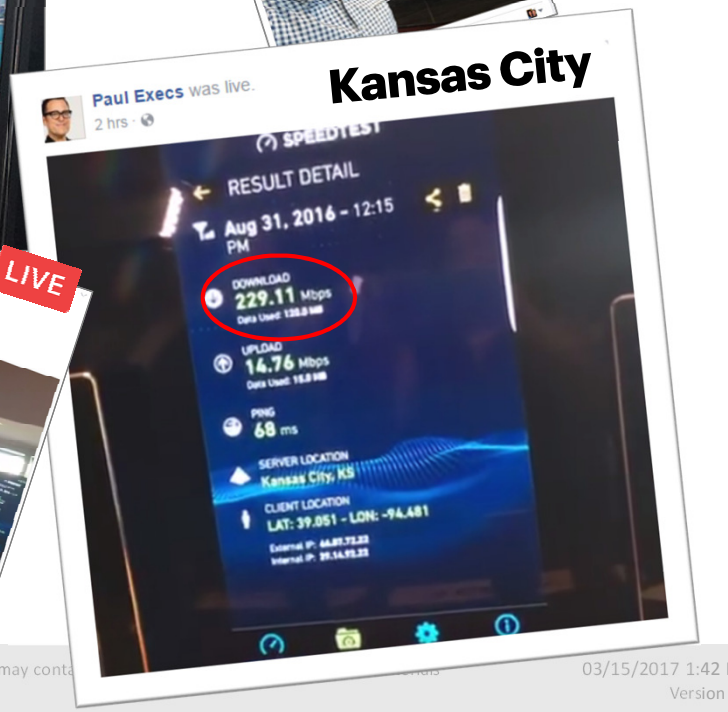
LTE Plus: Carrier Aggregation makes the pipe bigger for faster download throughput speeds



Faster Speeds

LTE Plus: You ain't seen nothing yet - we are rolling out multiple Carrier Aggregation

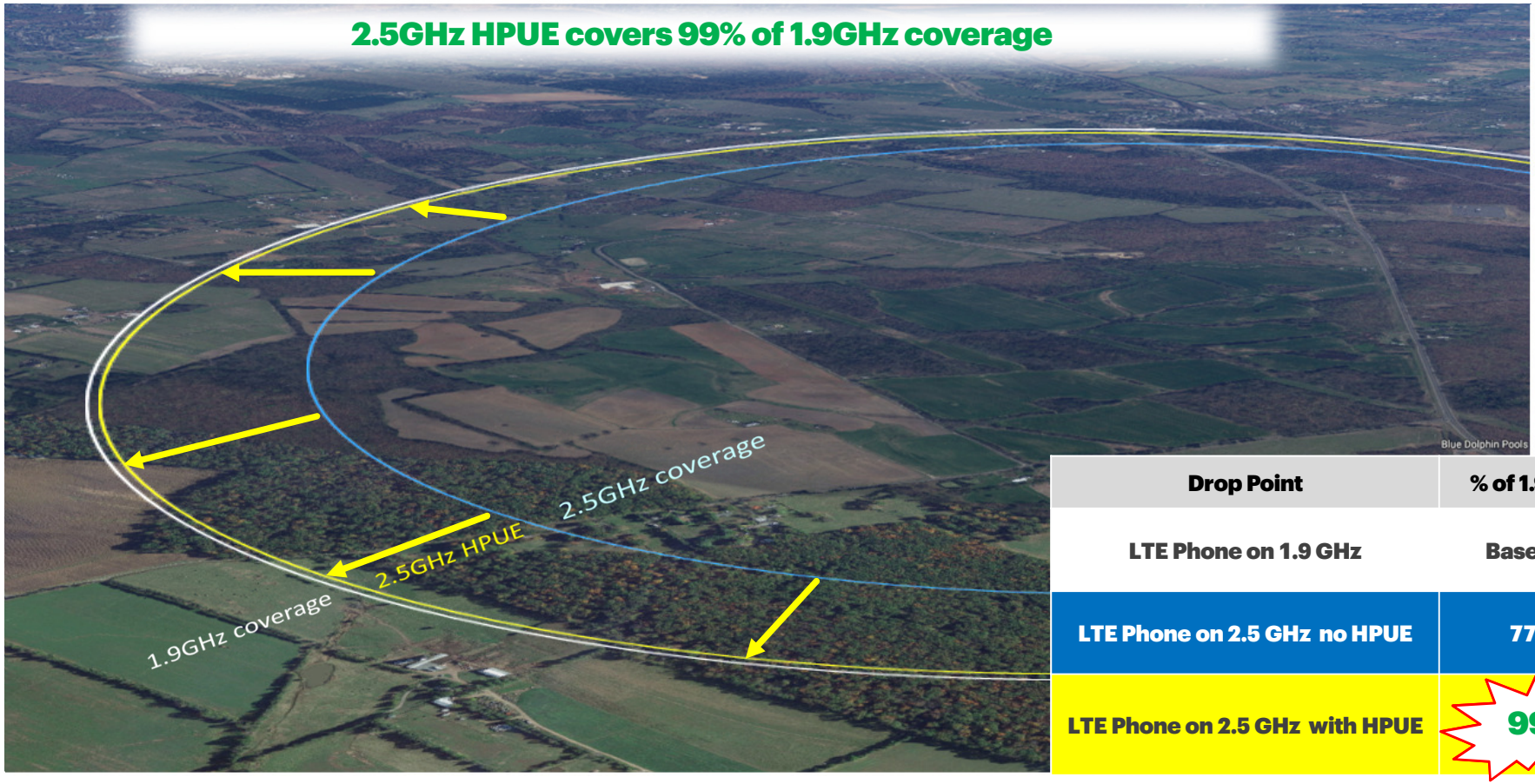




Peak Speeds

LTE @ 1CA > 50 Mbps
LTE @ 2CA > 100 Mbps
LTE @ 3CA > 200 Mbps
More to come...

Hot Off the Press
2.5 GHz HPUE matches 1.9 GHz LTE in outdoor coverage



Drop Point	% of 1.9GHz
LTE Phone on 1.9 GHz	Baseline
LTE Phone on 2.5 GHz no HPUE	77%
LTE Phone on 2.5 GHz with HPUE	99%

Sprint Network Tomorrow : Building the foundation for 5G

- Sprint's Densification & Optimization Plan is building the foundation for 5G
  - Street furniture (e.g. poles) not just towers
  - Signals from both sides of walls
  - Network Function Virtualization
  - Software Defined Networking (SDN)
- 5G is all about high-band spectrum (including millimetric band spectrum), which Sprint has commercially deployed
- Sprint's 2.5 GHz spectrum is considered the 'low-band' spectrum for 5G

The Sprint 1million project

Our goal:

Connect 1 million high school students who don't have internet access at home today

Sprint will **ELIMINATE** **the homework gap for 1 million high school students** (over 5 years) who don't have home access to the internet, providing them with **a FREE device and FREE connectivity and** for up to 4 years.

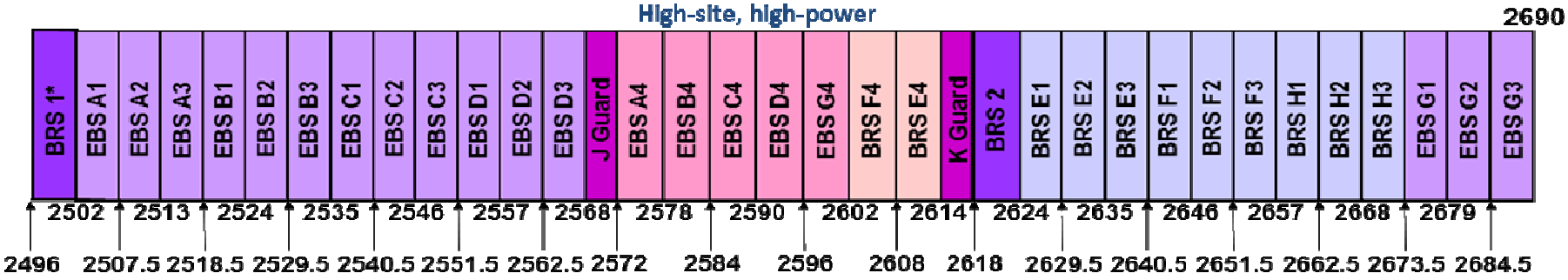
Eligible students will receive:

- **3 GB** per month of **free high-speed LTE data**. Unlimited data is available at 2G speeds if usage exceeds 3 GB in a month
- A **free smartphone, tablet, laptop** or **hotspot** device
- **Free hotspot capability** and **unlimited domestic calls/text** for students who receive a smartphone
- Free **Children's Internet Protection Act (CIPA) compliant content filter** with every device.

Template Version: 16:9GBED1.2
Version Date: 01/05/16

2.5 GHz Band Plan

The 2.5 GHz band is licensed to the Broadband Radio Service (BRS) and Educational Broadband Service (EBS). The band is divided into 33 channels of varying size and two guard bands, arranged into three segments: Lower Band Segment (2496-2568 MHz), Mid-Band Segment (2568-2624 MHz) and Upper Band Segment (2618-2690 MHz).



Sprint holds Upper Band BRS channel licenses for much of the country and leases excess capacity from EBS licensees in both the Upper and Lower band segments